

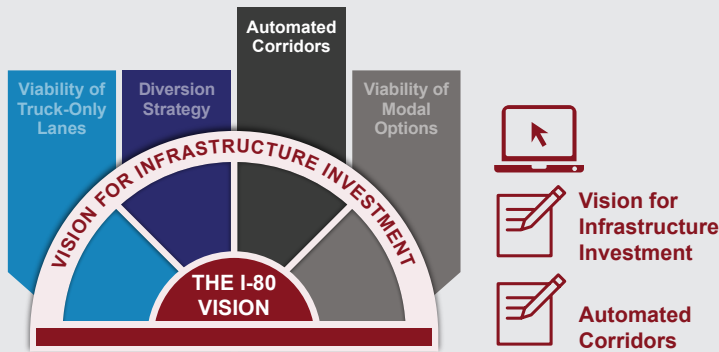
# I-80 INTEGRATED VISION: AUTOMATED CORRIDORS

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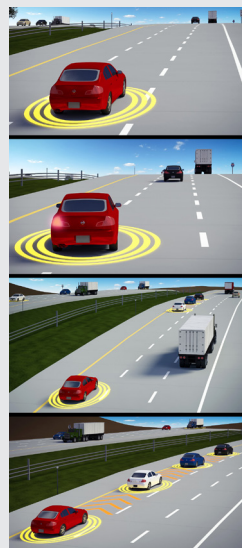
## INTERSTATE 80 PLANNING AND ENVIRONMENTAL LINKAGES (PEL) STUDY

The I-80 Vision is an integrated mobility solution for Iowa. It is the compilation of parts of multiple individual strategies that combine for a comprehensive, long-term solution. Together, these strategies provide a system framework for improving east-west travel across Iowa.



## Strategy Description

Self-driving vehicles are expected to be commonplace on the nation's highways sometime relatively soon. Fully autonomous vehicles, which allow vehicle operations without any human assistance, will change how we travel. Automated Vehicle (AV) technologies will transform our mobility. Studies predict there will be more vehicles on the nation's highways. Due to the new technologies, highways will be able to safely carry more vehicles. The impacts of these technologies on our future highway system, and how these advancements affect the need for conventional roadway widening are unknown. It is expected these technologies will impact the need to widen rural I-80 in Iowa.



## AV Technology Benefits

- Reduce the number of crashes
- Improve highway capacity
- Reduce unsafe driving
- Improve travel reliability
- Enhance public mobility
- Increase fuel efficiency



## Features of the Strategy

The speed of adoption and use of AV systems is uncertain. The Vision must therefore be flexible to accommodate future advancements as they develop. An aggressive AV adoption by 2040 could increase the number of vehicles along rural I-80 by 19 percent. That same level of adoption could reduce the number of crashes by a half.

## Impacts of AV on the I-80 Vision

- Number of travel lanes needed
- Timing of additional travel lane need
- Design details of roadway section
- Roadside communications infrastructure

## Integration with the Vision

At some point AVs will be the primary vehicle driving I-80 and the Vision was designed to accommodate these changes. Travel along rural I-80 will increase. The Vision includes additional space and design provisions to incorporate AVs as they emerge. AV technologies are integral to the Vision.

## AV Provisions within the Vision

- Near-term AV adoption is not likely to impact the need to widen I-80 in some areas.
- Mobility needs in the long-term with AV adoption will warrant six to eight lanes.
- AV adoption will likely affect the timing of lane additions.
- Roadway section dimensions can be modified to accommodate AV lanes without reconstruction.
- Further study of AV-supportive pavement and communications infrastructure designs is needed.